



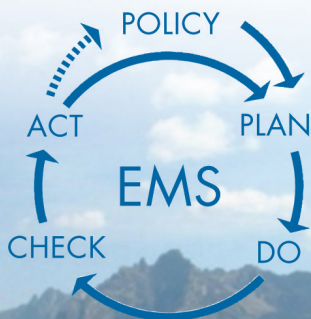
SAFETY GEAR PACK

LINKING

SAFETY

MISSION

PEOPLE





Our mission is to create a multi-program laboratory providing international nuclear leadership for the 21st century. In order to provide this leadership, we must demonstrate world leading safety behavior, safety performance and environmental stewardship. Taking care of our people is also an important priority for the BEA

management team and that includes providing open and frequent communications, actively seeking input and listening to our employees. I take the leadership responsibility for the safety of our employees and the protection of our environment very seriously.

We believe it is essential to our vision for the INL to achieve extraordinary safety excellence and strive for continuous safety improvement, as we become the nation's pre-eminent internationally-recognized, nuclear energy research, development and demonstration laboratory.

John J. Grossenbacher
Laboratory Director
Idaho National Laboratory

Idaho National Laboratory

Where Safety is Valued

Policy:

At the Idaho National Laboratory, all work activities are carried out in a manner that will protect, preserve, and nurture our people, facilities, neighbors, and the environment.

Vision:

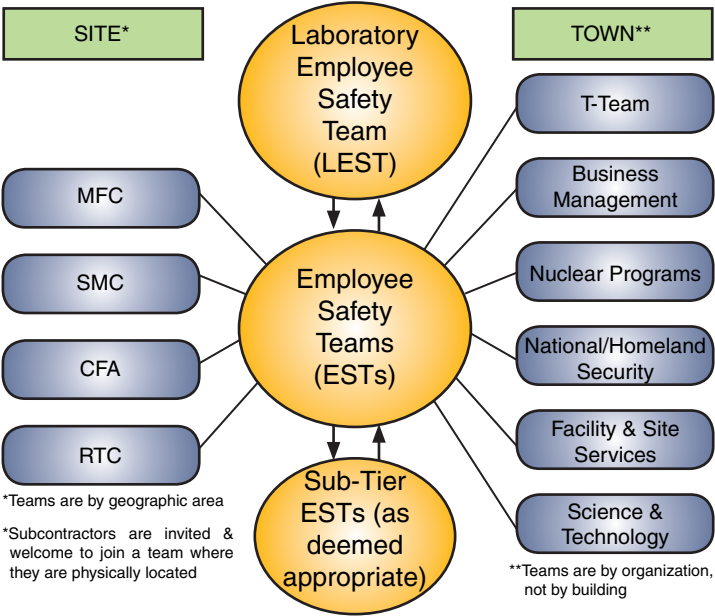
All injuries are viewed as preventable.

Value:

I will actively care for my safety and the safety of others.

1 Employee Safety Teams

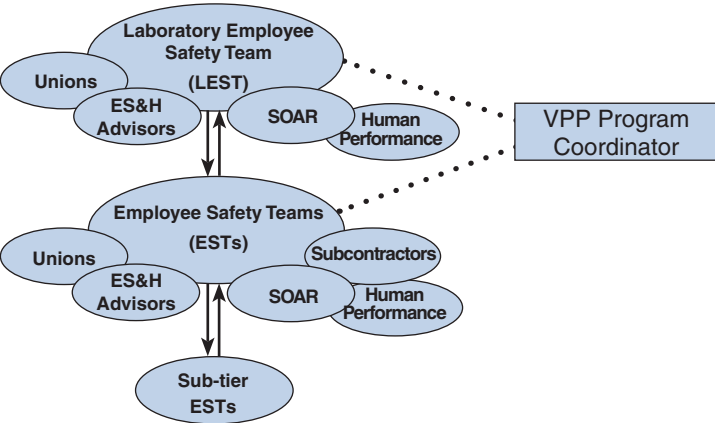
VPP Unit/Employee Safety Team Infrastructure



Participation on an Employee Safety Team (EST) is an effective way to involve employees in their own safety and health. ESTs are comprised of individual contributors, that include management, who come together to identify and implement ways to prevent injuries and illnesses in the workplace. While ESTs handle a wide variety of functions and projects, some of the more common roles include:

- Sharing and promoting a commitment to safety
- Reinforcing safe behaviors and minimizing at-risk behaviors
- Establishing goals and objectives
- Working health and safety issues
- Implementing ways to make the workplace safe
- Keeping up-to-date on hazards and effective mitigations
- Communicating up and down the organizational structure

The most important role is to serve as a leader and an organization's safety champion. Each team member who believes safety is important, translates that belief into concrete actions by being a safety role model for others at the Laboratory.



1 Employee Safety Teams

2 Employee Involvement

Behaviors that Demonstrate Employee Involvement

- Employees communicate to create a shared understanding
- Employees anticipate error-likely situations
- Employees confirm the integrity of defenses
- Employees improve personal capabilities
- Leaders facilitate open communication
- Leaders promote teamwork to eliminate error-likely situations and strengthen defenses
- Leaders search for and eliminate organizational weaknesses that create the conditions for error
- Leaders reinforce desired jobsite behaviors
- Leaders value the prevention of error

Employee Involvement Opportunities

- Become a member of an employee safety team/sub-team
- Review the minutes of employee safety team meetings
- Deliver “Safety Shares” at meetings
- Attend 12 safety meetings/year - occasionally present a meeting
- Participate in pre-job walk down
- Participate in pre/post job briefings
- Conduct safety inspections
- Establish safety goals and objectives
- Conduct SOAR observations/DO IT’S
- Contribute to a job safety analysis
- Attend safety and health training
- Participate in the annual S&H program evaluation
- Submit safety articles to Pause for Safety/safety newsletters
- Participate in daily stretching and balance exercises
- Attend Unit and Laboratory Safety Awareness events
- Volunteer to assist in Community Safety Outreach Programs



General Safety Expectations & Behaviors

- Report workplace injuries/illnesses to my supervisor.
- Report any safety issues/concerns to my supervisor.
- Be aware of hazards in my workplace and how they are mitigated.
- Initiate a timeout or stop work when a work task/activity is unsafe.
- Perform my assigned work tasks only after receiving appropriate training.
- Wear personal protective equipment as required.
- Follow procedures, directives, and other work control requirements.
- Wear personal dosimetry devices as required.
- Drive vehicles in a safe and defensive manner. Wear a seat belt. Drive within the speed limit.
- Only use personal recreation devices (walkman, etc.) if they are not prohibited by procedure and do not cause a distraction from responsibilities or emergency warnings.
- Only use cell phones, as a driver, when the vehicle is parked in a safe location (or in hands-free mode).
- Obey all postings and signs.
- Use handrails as provided.
- Use cross-walks as provided.
- Use proper footwear to match the season and walking surface.

Safety Value Statement:

I will actively care for my safety and the safety of others!

05-GA50002-68

Idaho National Laboratory

Fitness for duty

Actively Caring for Yourself and Your Coworkers

Discuss with your supervisor any of your own health or fitness problems that may impact your safety or the safety of others:

- *Injuries on or off-the-job*
- *New medications*
- *Emerging health signs or symptoms (such as dizziness, weakness, shortness of breath, or loss of stamina)*

If during work, you notice in yourself or your coworkers any behaviors, health problems, or symptoms that could create a hazardous situation, alert your supervisor immediately. Use your stop work authority if appropriate.

Reference: GDE-10 and LWP-14500

4 Briefing Questions / Human Performance

Before you proceed

The Five Key Questions
At the Pre-Job Briefing

Ask yourself, your peers and your supervisor

- 1. Has this activity been previously performed?
- 2. What are the critical steps or phases of this activity?
 - Important parts of the task that must go right
- 3. How can we make a mistake at a critical step (the outcome of the error is intolerable for personnel safety or the facility)?
 - use error precursors card/error prevention coaching card
- 4. What could go wrong with the facility, the environment, the equipment, or personnel?
 - a review of potential consequences and contingencies
- 5. What barriers or defenses are needed or are in place?
 - peer check
 - 3-way communication
 - place keeping
 - flagging

Follow-up Review Questions

- 1. What went well with this activity?
- 2. What could have been done better for this activity?
- 3. What practices should be improved for the next time this activity is performed?
- 4. What changed during the conduct of the activity?
- 5. What adjustments do we need to make now?

Error Precursors (short list)

Task Demands	Human Nature
• Time pressure (in a hurry)	• Stress (limits attention)
• High workload (memory requirements)	• Habit patterns
• Simultaneous, multiple tasks	• Assumptions (inaccurate mental picture)
• Repetitive actions, monotonous	• Complacency/overconfidence
• Irrecoverable acts	• Mindset ("tuned" to see)
• Interpretation requirement	• Inaccurate risk perception (Pollyanna)
• Unclear goals, roles & responsibilities	• Mental shortcuts (biases)
• Lack of or unclear standards	• Limited short-term memory
Individual Capabilities	Work Environment
• Unfamiliarity with task/first time	• Distractions/interruptions
• Lack of knowledge (mental model)	• Changes/departures from routine
• New technique not used before	• Confusing displays or controls
• Imprecise communication habits	• Workarounds/OOS instruments
• Lack of proficiency/inexperience	• Hidden system response
• Indistinct problem-solving skills	• Unexpected equipment conditions
• "Hazardous" attitude for critical task	• Lack of alternative indication
• Illness/fatigue	• Personality conflicts

Timeout and Stop Work Actions
(LWP-14002)

A timeout condition is one that can be corrected by the performing employee and the cognizant line management with minimal effort and time. For a situation that is deemed “readily fixable,” the corrective action will have mitigated the risk.

A stop work condition is a noncompliant condition, unsafe condition, or at-risk behavior or action associated with an item or work process, which if not corrected, poses a threat to public or personnel safety, facility or process operations, quality, or the environment.

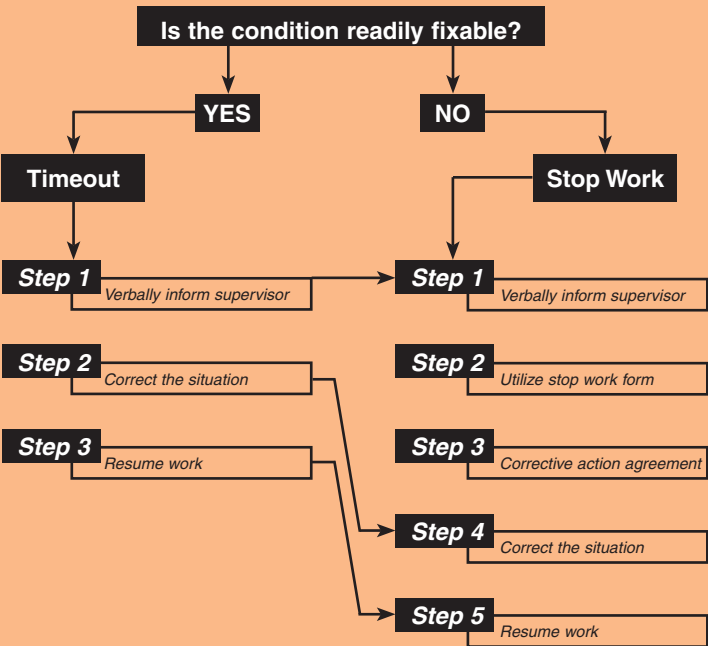
Steps for taking a timeout:

- 1. When you become aware of a potentially unsafe condition, discontinue work activities and clear all at-risk personnel from the area.
- 2. Inform all affected personnel of the reason for the work timeout. All employees are to honor the timeout.
- 3. Correct the situation and when confident that the timeout condition has been corrected, verbally concur.
- 4. Resume work.

Steps to take when stopping work:

- 1. Once aware of unsafe work activities, stop the activity and clear all at-risk personnel from the area.
- 2. Inform all affected personnel of the reason for the work stoppage, including the process owner and immediate management responsible for the work. All employees are to honor stop work declarations.
- 3. Once the stop work has been corrected, both parties need to orally agree and work can resume.

If work is not readily fixable, contact the line foreman, supervisor, or manager of the situation and fill out EDMS form 414.19 “Stop Work Action.”



Reporting Safety Issues ***(LWP-13840)***

A safety issue has reasonable potential to cause adverse environmental, safety, health, or quality assurance consequences, but does not deviate from written requirements.

Steps for reporting a safety issue:

- 1.** Be alert to unsafe conditions, at-risk behaviors, or close calls.
- 2.** Upon discovery, document the safety issue by entering your issue directly into ICARE.

Or

Complete a Potential Issue Report (PIR) and submit it to your supervisor or cognizant manager (Forms are located in the pocket holders attached to the walls/bulletin boards in the hallways or buildings; also, you can download the form from the forms index on Lotus Notes).

- 3.** Report your safety issue to a safety & health professional or a representative on the Employee Safety Team.

Ethics/Employer Concerns: To report employee or safety concerns anonymously, call: Employee Concerns hotline: 526-0333



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Do You Have A Safety Issue?

***Complete this Form & Submit to Your
Immediate Manager or Supervisor***

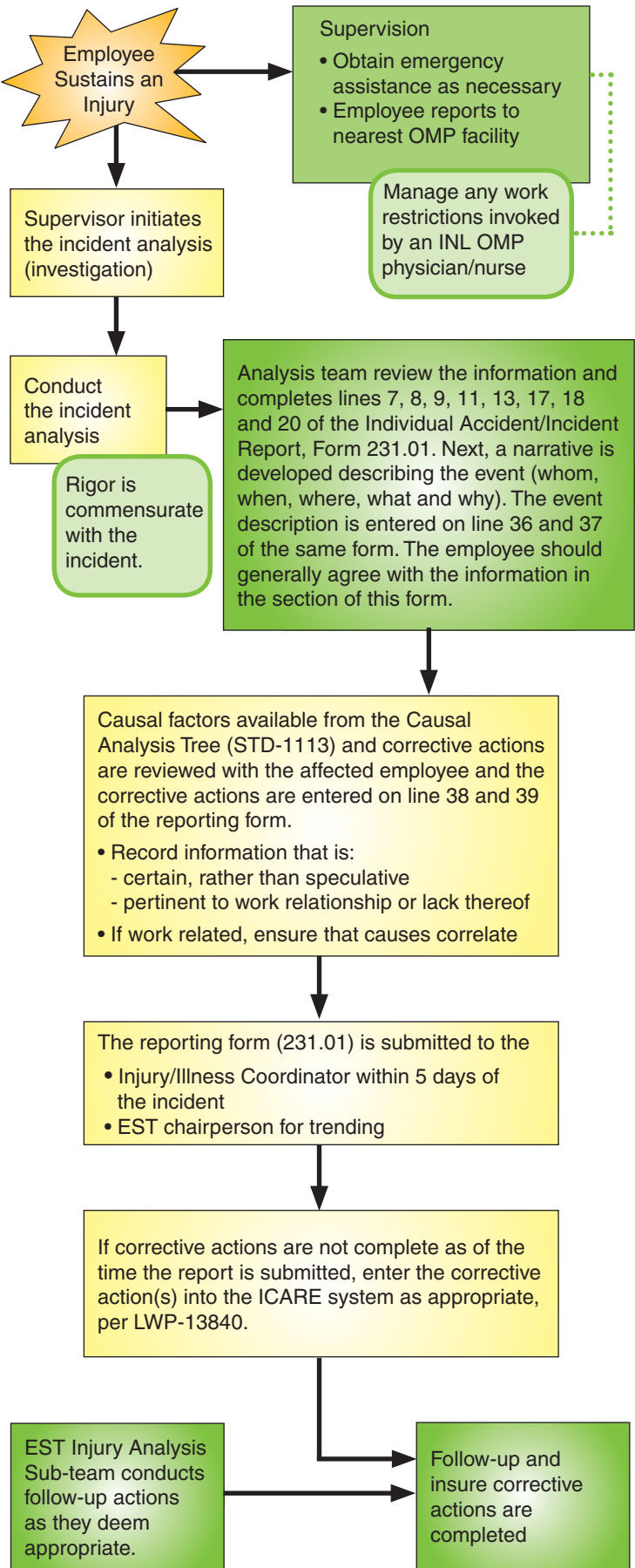
— Use the Form Inside —



“Actively Care”

By Eliminating Unsafe Conditions & At-Risk Behaviors

7 Investigation of Injuries/Illnesses



8 Safety Shoes & Prescription Glasses

Safety Shoes



If safety shoes are required, only approved protective footwear constructed of leather, that extends above the worker's ankle, shall be purchased through the Safety Shoe purchase program.

- A. With manager authorization, the employee may choose a pair of safety boots/shoes from among those styles that have been pre-approved for purchase [ANSI Z41].
- B. The immediate manager shall provide a Safety Shoe purchase voucher (Form 442.20), with the appropriate signatures, to the approved vendor (not to exceed \$100).
- C. Obtain your form from the forms index and the approved vendors are listed on the Occupational Safety & Health homepage.

Use Proper Winter Footwear

Winter Footwear:

- Has a tread design appropriate for winter weather conditions, with adequate slip resistance for crossing snow and ice.
- Does not have a heel exceeding 2-1/2 inches in height and therefore, reduces the risk of injury.

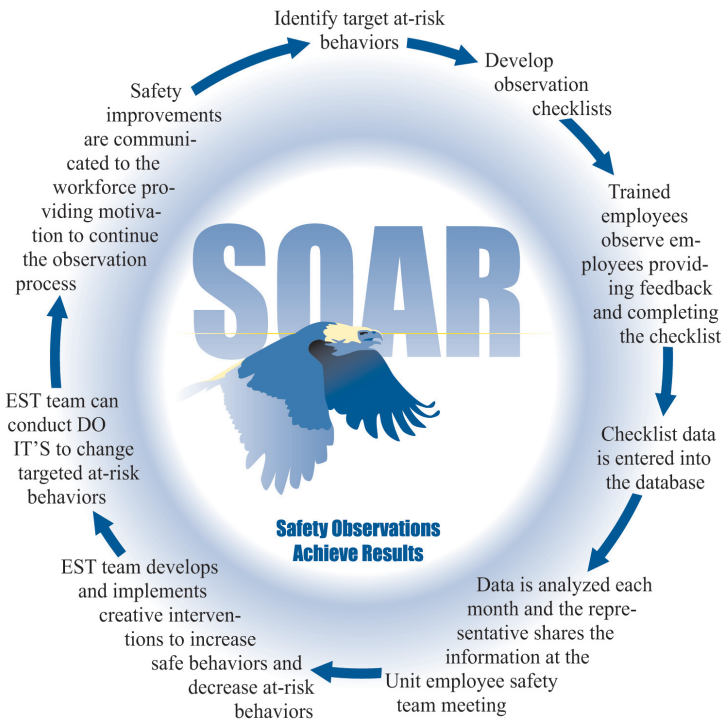
Prescription Glasses

Prescription safety glasses will be provided to an employee when the current glasses are beyond use or repair, or when the employee's vision prescription changes. If the vision prescription has changed, the supplier is only authorized to replace the lenses.



Optical Illusions in Idaho Falls is the supplier for prescription safety eyeglasses. Employees who need to order prescription safety glasses require a current doctor's prescription (no more than six months old), and INL EDMS Form No. 442.18 for Requisition for Industrial Safety Glasses, with the appropriate signatures, taken with them to the optometrist.

“The Observation and Feedback Process”



What is the SOAR Process?

SOAR is a process where peers observe peers performing a task and then they provide positive reinforcement for safe behaviors, and obtain a commitment to change at-risk behaviors.

What is the purpose of SOAR?

The purpose of SOAR is to reduce and/or eliminate at-risk behaviors and reinforce safe behaviors that will ultimately reduce worker incidents and injuries.

**No name,
No blame**

Peer-to-Peer

**It's not an
observation
without a
conversation**

10 ABC Model For Impacting Behavior

The ABC Model explains why we do what we do.



The ABC model helps us to understand what influences our behavior.

“A” stands for activators - activators tell us what to do, and sometimes, when and how to do it. We use lots of activators to encourage people to work safely. Their use is helpful but limited.

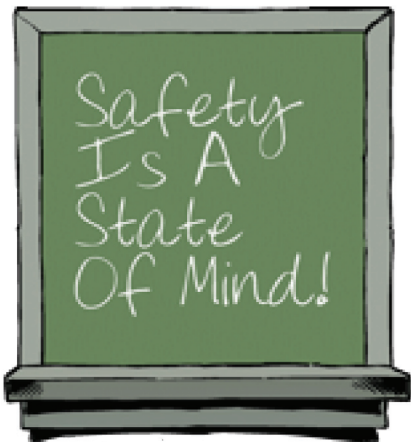
Examples: safety rules, training, and signs.

“B” stands for behavior - behavior is any action observable by others. When trying to increase safe behavior, you are making the consequences certain (reliable), soon (occur shortly after the behavior), and significant (important to us).

Examples of safety-related behaviors: wearing PPE, locking out power, and using a wrist rest at your computer.

“C” stands for consequences - consequences often reward us for taking risks. When we are rewarded with ease, comfort, or timesaving for risky behavior, resulting in no injury to ourselves, we are encouraged to take that same risk again. In other words, when the consequences for taking a shortcut are positive (saving time and effort), we will likely repeat that behavior. One of the key reasons we encourage feedback between co-workers is to counteract the naturally rewarding consequences of risk-taking.

Examples: feedback, injury, and saving time.



Which affects behavior more?

Is the problem a “won’t do” or a “can’t do”?

- If it’s a “can’t do”
 - activators are very effective (e.g. training, procedures, shift briefings, etc.)
- If it’s a “won’t do”
 - alternative consequences must be designed to effect a change.

Promoting Safe Behavior with the DO IT Process

DO IT is a 4-step process where a group of employees identify a potentially at-risk behavior to target, observe the occurrence of the behavior, intervene to affect the behavior, and observe again to test the effectiveness of their interventions.

Always keep in mind that the purpose of a DO IT process is not to collect data—it is to increase safe behavior.
Interventions change behaviors.

Define—Observe—Intervene—Test



In the **define** step, identify the target behavior. It is usually a behavior in the work environment that appears to be at-risk. Identify that behavior by analyzing information from general observations, reviewing injury/illness incidents, or simply brainstorming ideas. Next, describe that behavior in observable and measurable terms. An individual or group of individuals is then assigned to observe that target behavior at a specific location and time period.



In the **observation** step, data is collected to establish the baseline, which is a point where the data shows a stable pattern (the baseline is 72% safe). Establish a goal to be achieved in a selected time period (ex. 95% safe in 4 weeks).



A key step in this process is **intervention**. The intervention should be an activator or a consequence that, when put into place, will decrease at-risk behavior and increase safe behavior.

Remember, activators direct behaviors and consequences motivate behaviors. BE CREATIVE and design any interventions you think will direct or motivate workers to positively change behavior.



Finally, you are ready to **test** how well the interventions have or are working. Again, you will have employees observe the workplace and note the at-risk and safe behaviors. By comparing this data with the baseline, you will determine if you achieved the level of performance desired, if you need to intervene longer, or if you need to include additional interventions.

If the % safe goal is obtained, recognize the improvement and move onto the next target behavior. Remember to periodically test the % safe of the original target behavior to make certain improved performance is maintained.

12 Integrated Safety Management System (ISMS)

The objective of ISMS (PDD-1004) is to incorporate safety into management and work practices at all levels, addressing all types of hazards to ensure safety for the workers, the public, and the environment.

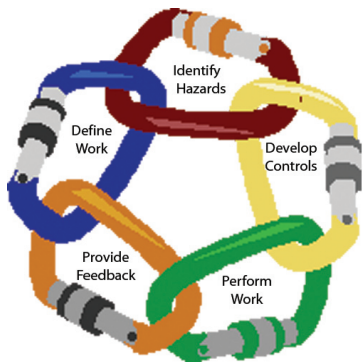
Reference: DOE G 450.1-4B



ISMS 5 Core Functions

The five core functions provide a distinct, phased approach in the continuing cycle of conducting safe work.

- 1 Define The Scope of Work**
Missions are translated into work; expectations are set; tasks are identified and prioritized; and resources are allocated.
- 2 Analyze the Hazards**
Hazards associated with the work are identified, analyzed and categorized.
- 3 Develop and Implement Hazard Controls**
Based on the hazards, safety controls are implemented. Examples include engineered controls such as glove boxes, administrative controls such as laboratory instructions and signage, plus personal protective equipment.
- 4 Perform Work Within Controls**
Readiness is confirmed and work is performed in accordance with Laboratory Excellence.
- 5 Provide Feedback and Continuous Improvement**
Feedback information on the adequacy of controls is gathered, and opportunities are identified for improvement.



13 ISMS Guiding Principles

The guiding principles become more significant at the laboratory level – establishing the infrastructure whereby work can be performed safely at all levels (e.g., balanced priorities, clear roles and responsibilities, competence commensurate with responsibilities.)

1. Line Management Responsibility for Safety

Line management is responsible for the safe and efficient conduct of work to ensure the protection of the public, the workers, and the environment.

2. Clear Roles and Responsibilities

Clear and unambiguous lines of authority and responsibility for ensuring safety are established and maintained at all organizational levels.

3. Competence Commensurate with Responsibilities

Personnel possess the experience, knowledge, skills, and abilities that are necessary to discharge their responsibilities.

4. Balanced Priorities

Resources are effectively and adequately allocated to address safety, programmatic, and operational considerations. Protecting the public, the workers, and the environment is a priority whenever activities are planned and executed.

5. Identification of Safety Standards/Requirements

Before work is performed, the associated hazards are evaluated, and standards and requirements are established that, when properly implemented, provide adequate assurance that the public, the workers, and the environment are protected from adverse consequences.

6. Hazard Controls Tailored to Work Being Performed

Engineered and administrative controls to prevent and mitigate hazards are integrated and tailored to the work and associated hazards.

7. Operations Authorization

The conditions and requirements to be satisfied for operations to be initiated and conducted are clearly established and agreed upon.

8. Employee Involvement

Execution of the ISMS is focused where work is executed – at the laboratory level, the facility level, and the activity level. Line management direction and ownership, employee input and support, and effective processes are present to ensure success of the ISMS.



14 Environmental Policy / ISO 14001

INL's EMS integrates systematic environmental protection and compliance with ISMS.

INL bases its EMS on ISO 14001, the international standard for environmental management systems. In 2005, INL's EMS was registered to the ISO 140001 standard.



The foundation of INL's EMS is the INL Environmental Policy. Employees can review INL's environmental policy statement at:

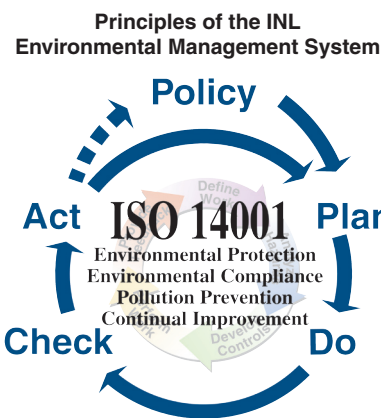
<http://www.inl.gov/environmentalpolicy/>

The policy commits INL to excellence in environmental stewardship and delivery of its mission "to conduct research, development and demonstration for energy and national security in a manner that protects and preserves human health and the environment

and is in full compliance with applicable environmental laws, regulations, and other requirements." The four key elements of the policy are:

- Environmental Protection
- Environmental Compliance
- Pollution Prevention
- Continual Improvement of INL's EMS

INL's Environmental Policy applies to **every** INL employee and subcontractor



INL's EMS is based on five core functions:

- INL's Environmental Policy
- Planning
- Implementing and operating
- Checking and corrective action
- Management review

In other words – Plan, Do, Check, Act

INL establishes environmental objectives and targets for each program area. See the following link to view current objectives and targets: <http://home.inel.gov/ea/iec/objective07.html>

- Facility & Site Services
- Nuclear Operations (RTC)
- Specific Manufacturing Capability (SMC)
- Science and Technology
- Nuclear Programs
- National & Homeland Security
- Infrastructure Planning
- Nuclear Operations (MFC)

As an employee, what is your role?

INL's EMS focuses on activities that could affect the environment adversely and significantly, as defined in LST-96 'Environmental Aspects of INL's Work Activities.' Take a minute and review LST-96 on EDMS to identify those work activities that have the potential to significantly impact the environment. If you are involved in any of those activities, your work could significantly impact the environment. List 96 contains information you need to know. Our EMS and the ISO 14001 standard expect workers, whose work could significantly impact the environment, to know and understand the procedures and controls needed to control those impacts.

You can find INL Environmental Facts for MFC, RTC, SMC, STC, and Sitewide areas on the INL's EMS Homepage at:
<http://home.inel.gov/ea/iec/ems.html>

All of us should remember that the most important thing we can do to support INL's VPP, ISMS and EMS (ISO 14001) is to perform our work in a professional manner using the approved procedures. By doing this, we accomplish our work safely while protecting the environment.

In addition, employees should understand:

- The INL Environmental Policy
- Helping protect the environment by complying with environmental procedures including waste disposal and reporting spills promptly
- Supporting the "4 Rs" of Pollution Prevention (P2)—for details, see the INL Site Pollution Prevention Plan (DOE/ID-10333):

- ➔ **Reduce**—Protect the unique natural, biological, and cultural resources of your work location by minimizing waste
- ➔ **Reuse**—Reuse equipment and supplies in your work environment when possible
- ➔ **Recycle**—Conserve resources by recycling supplies such as printer cartridges and requesting a recycling bin for your work area
- ➔ **Rebuy**—Consult with Procurement to purchase recycled materials whenever possible.

- Actively help protect our environment in other ways such as disposing of litter properly, leading a recycling campaign, or cleaning up your building area.

16 Safety Manual Resources by Topic

Manual 14A & 14B – Safety & Health

- Access to Employee Exposure & Medical Records
- Accident Prevention Signs, Tags, Barriers and Color Codes
- Accident Reporting & Follow-up
- Activity Level Hazard Identification, Analysis & Control
- Aerial Lifts and Elevating Work Platforms
- Bloodborne Pathogens Exposure Control Plan
- Boilers & Unfired Pressure Vessels
- Carcinogens
- Charter for the Laboratory Employee Safety Team
- Chemical Storage
- Chronic Beryllium Disease Prevention
- Compatible Chemical Storage
- Concrete and Masonry
- Confined Spaces
- Controlling & Monitoring
 - Exposure to Asbestos
 - Exposures to Cadmium
 - Exposures to Lead
 - Exposure to Noise
- Cryogenic Liquids
- Demolition Safety
- Developing & Using
 - Job Safety Analyses
 - Safe Work Permits
- Division of Occupational Medicine (DOM) Program Processes
- Electrical Safety
- Emergency Administration of Potassium Iodide
- Ergonomics Program
- Excavation and Surface Penetration
- Explosives Safety
- Facility Hazard Identification
- Fall Protection
- Field Work
- Fire Protection Exemptions & Equivalencies
- Gaseous Fire Suppression Systems
- Handling & Use of
 - Compressed Gases
 - Flammable & Combustible Liquids
- Hazard Communication
- Hazardous Waste Operations & Emergency Response
- Heat and Cold Stress
- Heavy Industrial Vehicles
- HEPA Filter in-Place Testing
- High-Temperature Systems
- Industrial Hygiene Exposure Assessment
- Industrial Safety Qualification
- INL Fire Marshal Charter
- INL Fire Protection Program & Plan
- INL Wildland Fire Management Guide
- Inspecting MSA Custom 4500 MMR self-contained Breathing Apparatus (SCBA)
- Inspection, Testing, & Maintenance of Fire Protection Systems & Equipment
- Ladders
- Laser Safety Program
- Maintaining Facility Chemical Storage Limits
- Management of Time Sensitive Chemicals
- Managing Fire Protection Impairments
- Material Handling & Storage
- Motor Vehicle Safety
- Occupational Safety & Health
 - Functions, Roles, Responsibilities and Interfaces
 - Program Overview
- Occupational Safety Program
- Performing Fire Hazards Analysis
- Performing Safety Assessments (FSA) Abbreviated Fire Assessments (AFA)
- Personal Protective Equipment
- Placement, Inspecting, Testing, & Maintaining Emergency Eyewash & Shower Equipment
- Portable Equipment & Handheld Power Tools
- Posting Asbestos Advisory Signs
- Pressure System Safety
- Preventing Disease From Rodents, Birds & Bats
- Radio Frequency (RF) Electromagnetic Radiation Safety Program
- Respiratory Protection
- Safeguarding Equipment
- Safety and Health Inspections
- Safety of Aviation Charter & Leasing Services
- Scaffolding
- Specialized Ventilation
- Stop Work Authority
- Surveying Indoor Air Quality
- Temporary Facilities
- The Program Requirements for the Voluntary Protection Star Process at the INL
- Use of First Aid Kits
- Use of INL Approved Supplied Air Suit
- Walking & Working Surfaces
- Welding, Cutting & Other Hot Work

SAFETY CONTACTS

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Tony Kavran Injury/Illness Coordinator	(208) 526-5826 Anthony.Kavran@inl.gov
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OTHER CONTACTS

INL Warning Communications Center	(208) 526-1515
In-town Emergency	9-911
Site Emergency	777

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